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DROPOUT IN HIGHER EDUCATION: A REVIEW AND THEORETICAL SYNTHESIS OF RECENT RESEARCH

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INTRODUCTION

The research reported herein was requested and supported by the Office of Planning, Budgeting, and Evaluation (OPBE), U.S. Office of Education under contract number OEC-0-73-1409. As requested, the aim of the report was threefold. First to determine how current rates of dropout among college students were related to measures of individual ability and social status. Second, to determine, from these rates, how rates of dropout among college students have changed since 1965, the year covered in the OPBE model of enrollment and persistence developed by Froomkin and Pfeferman of the U.S. Office of Education. Third, to attempt to develop a theoretical model of dropout which would not only permit the synthesis of recent research on dropout, but also help explain, in longitudinal terms, the process of dropout from college.

With respect to the first two aims of the report, the authors were unable to develop accurate quantitative measures of rates of dropout among individuals of differing ability and social status because there has not been, since 1965, any study of magnitude or detail which would have permitted such measures to be developed. Nevertheless, given the availability of a large number of smaller studies of dropout, the authors have been able to estimate the direction in which present rates of dropout from college have changed since 1965. It should be

noted, however, that while comparison of these numerous studies have lead to a consistent set of findings, these findings must, in view of the variable quality and detail of the studies, be considered suggestive in nature until they are confirmed by a national study of dropout along the lines of Project Talent.

With regard to the third aim of the report, the authors have developed what they believe to be a potentially valuable theoretical framework with which to analyze the process of dropout from college. Synthesis of recent research suggests that this framework can help distinguish between the various forms of dropout behavior; namely voluntary withdrawal, academic dismissal, transfer, and permanent dropout from college. It should be noted, in this context, that an earlier synthesis by Spady (1970) was greatly influential in the development of the theoretical model of dropout suggested here.

The report which follows, consists of four chapters. The first deals with the problem of defining dropout from college, and, in considering the various meanings applied to that term, suggests some needed modifications in the definition. The second chapter reviews recent data on dropout in order to estimate both the effect of ability and social status upon current rates of dropout and the degree to which rates of dropout have changed since 1965. The third and fourth chapters deal, respectively, with the development of the basic theoretical model which seeks to explain dropout as an interactive process between the individual and the institution, and with the synthesis of

recent research on dropout within that theoretical model. The fifth and final chapter utilizes the findings of the preceding two chapters in order to develop a modified definition of dropout which seeks to distinguish voluntary from non-voluntary dropout and transfer from permanent dropout from higher education.

I. DROPOUT: A MATTER OF DEFINITION

Before we attempt to deal with the recent literature on college dropout, it is necessary to distinguish between the variety of meanings given to the term dropout. For the purposes of this report, these various meanings can be classified within two main definitional types. These are 1) dropout as referring to those persons who leave the college at which they are registered; and 2) dropout as referring only to those persons who never receive a degree from any institution of higher education.

Dropout as Leaving College of Registration

The first definition of dropout, that is that which classifies as dropout any person who leaves their institution of registration, is geared primarily to the concerns and policies of specific institutions of higher education. From their point of view, the failure of individuals to complete a degree program for which they are registered represents inefficient utilization of scarce institutional resources. In effect each dropout represents a loss to the institution of not only a place which may have been taken up by another person able to complete the program of instruction, but also of a wide-ranging set of academic resources invested in his growth as a student. Dropout, as so defined, has therefore been a criterion both to admissions officers, institutional planners, guidance and counseling personnel, and to social scientists and others concerned with student morale, institutional commitment, and with the

prediction, explanation, and prevention of student turnover in institutions of higher education.

Defining dropout to include anyone leaving a college at which he is registered, has, in application, both strengths and weaknesses. Its strengths lie primarily in the ease with which reliable data can be collected as to dropout in varying types of institutions of higher education and in its amenability to the application of a rigorous conceptual framework which seeks to explain dropout. College registration files, which have normally provided much of the data utilized by most such studies of dropout, are updated on a regular and, for the most part, consistent basis and are usually available for easy access by researchers. As such this definition of dropout is both methodologically accessible and subjectable to ready and reliable longitudinal analysis. It is also more easily applied within a theoretical model of social behavior because the college more closely approximates an enclosed social system within which definable relationships can be hypothesized and tested. The boundaries of the individual college are, for instance, more definable than are the relevant boundaries of the wider system of higher education.

The weakness of such a definition of dropout lies in the fact that it overlooks the large numbers of persons who leave the institution at which they are registered to attend another institution of higher education. That is, it ignores the phenomena of transfer between colleges and therefore tends to overestimate the number of persons who dropout of higher education altogether. In so doing, the definition, as commonly applied,

tends to ignore the fact that the higher educational system is a dynamic entity within which there is a constant differentiation of individuals of varying characteristics among varying types of institutions of higher education. Finally, in its common usage, the definition also tends to treat as dropoust those persons who leave their institution of registration for a temporary period. Given the increasing occurrence of such temporary dropouts, or "stopouts," this definition of dropout should properly include only those persons who permanently leave the institution in which they are registered.

Dropout as Failure to Obtain Any Degree

The second definition of dropout, that which includes only those persons who fail to receive a degree from any college, is directed primarily toward wider social policy, at both state and national levels, rather than to institutional concerns. Since the definition focuses attention on the system of higher educational institutions, it has been most often employed by educational and social planners, by social scientists concerned with problems of the production of "human capital," and by government officials concerned with the allocation of scarce resources among alternative forms of high-level manpower production. By taking account of the transfer of individuals between different institutions, this definition assumes, in effect, that "human capital" is wasted only when individuals fail to achieve a certifiable level of skill acquirement at some type of higher educational institution. As such it argues that the system of higher education is most effective when there

exists a sufficiently diverse mix of educational programs and institutions to fit the needs of a diverse student body.

While such a definition of dropout more closely approximates the concerns of social planners and, to a degree, the functioning of the system of higher education, it has a number of weaknesses which make it rather difficult to employ in social science research. On one hand, it is extremely difficult to gather reliable data for studies employing such a definition. The non-uniformity of data accumulated by different institutions together with the shear difficulty in tracing out and gathering data on the educational careers of a large cohort of college entrants makes such studies of dropout extremely difficult to carry out. This is particularly true when transfers to other institutions do not occur immediately after withdrawal from another institution (i.e. when transfer and stopout occur simultaneously). On the other hand, this definition of dropout does not lead to as clear a conceptualization of dropout as a process as does the more simple definition of dropout. This results not only from the problem of specifying the social boundaries of the higher educational system, but also from the difficulty of comparing a very diverse body of institutions. For instance studies employing such a definition of dropout would require the development of a multi-dimensional institutional data base which would permit multiple comparisons to be made among a very wide variety of institutions of higher education. As of yet, such a data base has not been adequately developed.

Dropout: The Absence of the Individual Perspective

Whether one takes dropout to mean all those persons who leave their institution of registration, or mean only those persons who fail to obtain a degree from any institution of higher education, it is important to recognize that in both cases the researcher faces two important limitations; the tendency to direct attention toward the goal of efficiency rather than effectiveness, and the tendency to ignore the perspective of the individual student. With regard to the former, emphasis upon institutional concerns about efficiency has often led educational planners to overlook the fact that effectiveness is an equally important concern of education. And though it is clear that efficiency in the utilization of scarce resources is a necessary part of institutional planning, there is little, if any, research to suggest that efficiency is in any way related to effectiveness in higher education. Indeed it appears that the two goals may be antithetical to each other.

A second more important limitation inherent in both definitions of dropout is the tendency to ignore the perspective of the individual. Specifically, these definitions, as commonly employed in past research, overlook the fact that individuals enter institutions of higher education with a variety of abilities, interests, motivations, and levels of commitment to the goal of college completion. The simple fact that higher education, of any form, may be unsuited to the needs, desires,

and/or interests of a number of individuals, who nevertheless go on to college, is thus ignored.[1] Unfortunately, by ignoring this fact, such definitions of dropout contain, or at least imply, connotations of inferiority on the part of the individual who drops out. In so doing past research has inadvertently tended to reinforce the notion that higher education is, or should be, the only arena for high-level training beyond high school and has therefore also reinforced the tendency to expand higher education rather than reconsider it.

Dropout as Employed in the Present Study

Given the amenability of the more simple definition of dropout to the application and testing of a rigorous theoretical model, it is that basic definition which will be employed in the remainder of the report. Specifically, college dropout will be taken to refer to those persons who permanently leave the institution in which they are registered. Knowledge, however, of its weaknesses, that is its inability to distinguish between transfer and non-transfer students and its tendency to emphasize the institutional point of view over that of the individual, will be utilized in the course of the report in order to develop a more appropriate definition of dropout, one which can be utilized in a wider variety of research situations.

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[1]The resulting phenomena of a "captive audience" in institutions of higher education, that is, the existence of large numbers of students who enter college primarily for fear of not going, is increasingly becoming an object of concern on the part of both educational and governmental officials alike. Many such individuals are often disinclined to the intellectual demands of effective institutions of higher education and therefore tend to resist attempts at educational change.

II. THE DIMENSIONS OF DROPOUT IN HIGHER EDUCATION

In this section of the report, based upon a survey of the current literature, we will attempt to analyze the changing trends in dropout rates among individuals of different ability and social status backgrounds. Attention, however, will focus primarily upon the changing effect of social status upon dropout because it is this factor, more than that of ability, which appears to have increased in its ability to discriminate between those who persist in college and those who dropout.

In dealing with the short-term historical changes in dropout from higher education, we will focus on 1965 as the "before and after" point. That is, we will take the major studies completed prior to 1965 as essentially given and then attempt to identify changes in dropout trends since that time. Our choosing 1965 as the standard against which later studies are compared is largely the result of the fact that the OPBE (Office of Planning, Budgeting, and Evaluation) model employs Project Talent data gathered between 1960 and 1965.

Before turning to a survey of the recent literature it is necessary to point out that there have not been any studies, since 1965, of the magnitude or the detail of that of Project Talent, the data base for the OPBE model. That being the case, it has not been possible for the reviewers to develop the types of quantitative coefficients which parallel those employed in the OPBE model, and which would have permitted

a detailed comparison of present rates of dropout among individuals of differing abilities and social status backgrounds with those in 1965.[1] For that reason alone, the reviewers have had to rely upon the comparison of a rather large number of much smaller studies of dropout; studies which vary in both quality and detail. In so doing, the reviewers have been able to estimate the direction in which 1965-based data would bias, if at all, predictions of present-day rates of dropout.

It must be noted, even in this respect, that any analysis such as this, which is based upon numerous small-scale studies, encounters two overriding and fundamental problems in interpretation. First, there is the basic difficulty in standardizing the results of studies that employ widely divergent measures of social status, varying types of control variables (if any), and numerous types and techniques of sampling. Second, there is the difficulty of identifying short-term historical trends from the comparison of numerous one-time period studies, especially when those studies employ divergent standards of measurement.

In an attempt to solve some of these standardization problems, we will, throughout this section, be sensitive to the type of social status measure or measures employed and to the level or geographical unit to which the study applies (e.g. single institution, state, and national sample).

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[1]It should be noted, in this regard, that sufficiently detailed data do exist for such a comparative study; namely the data files of the American Council on Education. Unfortunately, their utilization, in the past, has been surprisingly limited and unimaginative.

Such sensitivity is required on one hand because the choice of social status measure(s) affects the outcome of comparisons between individuals of different social status categories, and, on the other hand, because previous research has demonstrated somewhat conflicting results when single institutional studies are compared with larger, multi-dimensional studies, even when comparable measures of social status are employed.[2]

With regard to the former, single and therefore necessarily somewhat crude measures of social status not only underestimate the total effect of social status upon college persistence, they also yield results which vary according to the measure employed. Father's education, for instance, tends to be a better predictor of the child's educational attainment than is father's income if only because parental education is a better measure of the motivational component of social status than is income.[3] With regard to the latter, different findings for single institutional studies result from the fact that different institutions have different dropout rates even after the characteristics of the students are taken into account. More importantly, different institutions tend to have differential effects upon the persistence of students of different social status backgrounds. Multi-institutional studies are

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[2]See Folger, et. al. (1970, p. 317).

[3]Eckland (1964) has argued that higher social status persons are, in fact, more highly motivated to persist in college. Thus, he suggests that any social status measure failing to tap this motivational aspect of social status will underestimate the effect of social status upon college dropout.

therefore not only difficult to interpret but also difficult to compare to single institutional studies even when institutional characteristics are taken into account.

Turning now to the review of the recent literature, this section of the report will (1) attempt to analyze both the single and multi-institutional studies at both the state and national level in order to determine in what manner the effect of social status upon persistence in college has changed since 1965, and (2) determine to what degree these changing effects of social status have been mediated by changing enrollments in different institutions of higher education.

Individual Characteristics and Dropout Since 1965

Single Institutional Studies of Dropout

Since 1965 there have been a number of smaller, single institutional studies of dropout. Unfortunately, most of these studies have failed to separate the independent effects of ability and family background upon persistence in college (Anderson, 1967; Augustine, 1966; Chase, 1970; Cohen and Brawer, 1970; Cope, 1969; Bossen and Burnett, 1970; DiCesare, 1970; Gold, 1970; Rossman and Kirk, 1968; Winther, et. al., 1970; and Zaccaria and Creaser, 1971). Nevertheless, a comparison of these findings with Eckland's (1964) review of pre-1965 studies of dropout reveals some interesting, though very tentative, facts (Table I). First, most post-1965 studies indicate an effect of social status upon persistence in college.

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Table I

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TABLE I

FINDINGS FOR STUDIES OF COLLEGE PERFORMANCE*, PRE-1964 AND POST-1965, BY INDEX OF S.E.S. AND LENGTH OF STUDY

Time Period	Study Length: One Year or Less S.E.S. Index: Single	One Year or Less S.E.S. Index: Composite	Two or More Years S.E.S. Index: Single	Two or More Years S.E.S. Index: Composite	Findings
Pre-1964	0	2	10	1	Positive
	13	1	6	0	Not Related
	0	0	0	0	Negative
Post-1965	4	3	3	3	Positive
	4	0	0	0	Not Related
	1	0	0	0	Negative

SOURCES: Pre-1964: Eckland (1964, p. 41); Post-1965: Cohen and Brawer (1970), Morrisey (1971), Bossen and Burnett (1970), Taylor, et. al. (1971), Winther, et. al. (1970), Gold (1970), Augustine (1966), Anderson (1967), Chase (1970), Rossman and Kirk (1968), DiCesare (1970), Nicholson (1973), Cope (1969), Zaccaria and Creaser (1971), Spady (1971).

*Performance was defined by Eckland (1964, p. 41) as refering to any index of grade averages, withdrawal, or graduation. The post-1965 studies refer only to withdrawal or graduation.

Second, a greater proportion of studies utilizing composite measures of social status have indicated positive relationships between social status and persistence than have studies using single measures of social status.[4] Third, and clearly the most tentative finding one can infer from these comparisons, is that there has been an increase, since 1965, in the overall effect of social status upon college persistence.

Of the few single institutional studies which have considered the independent effect of social status upon persistence, all have shown a direct relationship between family background and staying in college even when ability is held constant (Morrisey, 1973; Nicholson, 1973; Spady, 1971; and Taylor, et. al., 1971). In all cases, ability is clearly the most important determinant of success in college, as it has been in all major studies using pre-1965 data (Bayer, 1968; Panos and Astin, 1968; Sewell and Shah, 1967; and Wegner and Sewell, 1971). It should be noted, however, that measured ability is itself affected by the individual's social status. Namely, persons of higher social status are more likely to score higher on tests of ability than are persons of lower social status of comparable characteristics. Therefore one can assume that these studies somewhat underestimate the effect of social status on persistence simply as a result of bias in the measure of ability.

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[4]Though not shown in Table I, of particular relevance for the present analysis is the fact that those few studies which have used income as a measure of social status have been the least consistent in outcome.

Multi-Institutional Studies of Dropout

Of the several multi-institutional studies of dropout that have been carried out since 1965, two have been on the local and/or state level. While both indicate a positive relationship between somewhat different measures of social status and persistence, they, like a number of smaller studies cited above, have ignored the intervening effect of ability upon persistence in college. One study by the Tennessee College Association (1972) finds a slight but significant positive relationship between family income and persistence in college in each of the four years after entry (Figure I). Interestingly, income is related to both

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Figure I
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transfer and permanent termination. The other study, one of twenty-three northern California junior colleges, finds that though family income is not significantly related to persistence, father's occupation is so related (MacMillan, 1969, 1970a, 1970b). Again is raised the question as to the utility of family income as a measure of family social status.

The remaining multi-institutional studies are all multivariate analyses of dropout based upon national samples of varying sizes. The first by H. Astin (1970) deals primarily with "disadvantaged" students and employs a one-year follow-up of 1966 freshmen whose institutions participated in the Cooperative Institutional Research Program of the American Council on Education. A "disadvantaged" student was operationally defined as having: 1) family income less that $6,000 and 2) father's

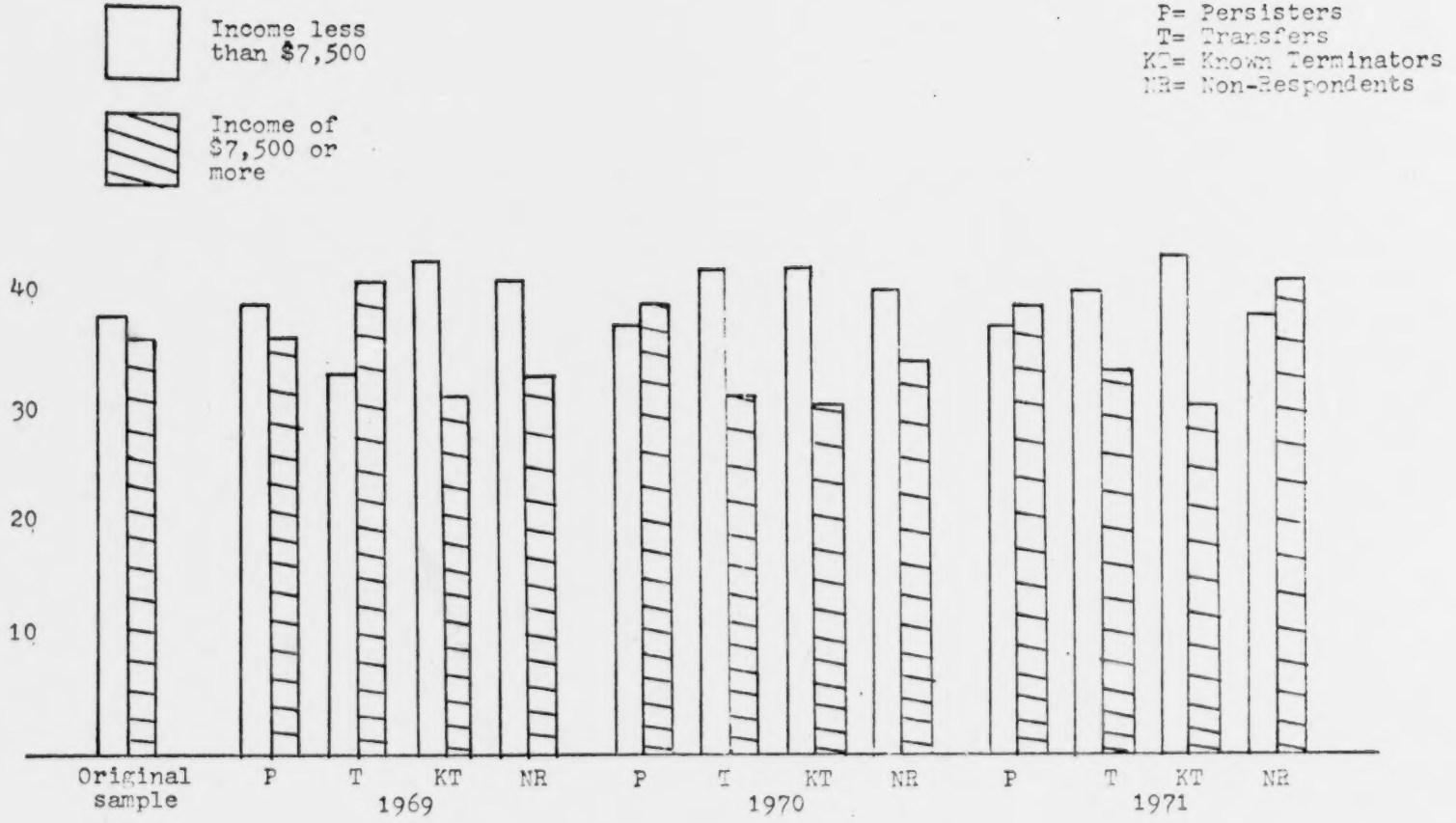

FIGURE I

EDUCATIONAL STATUS TWO, THREE AND FOUR YEARS AFTER ENTRY, BY FAMILY INCOME

SOURCE: Tennessee College Association (1972, p.49).

education less than high school. As with most pre- and post-1965 studies, both ability and social status are related to persistence in college. Ability remains, however, the single greatest predictor of returning to college for a second year. But more interesting is the fact that even at levels of father's education below high school, father's education remains a significant predictor in the regression equation on "return to college for a second year" (H. Astin, 1970, p. 23). Although a possible artifact of the types of income categories employed in the study and/or of dealing with only low income students, the study indicates that family income, while in the expected direction is not a significant predictor of college progress. Thus these data seem to imply that family income, at low levels of social status, underestimate the effect of social status upon college persistence. That even small additional amounts of father's education prove significantly related to persistence, suggests that education, through its reflection of the motivational climate of the family, is a better measure of social status than is income even at these low income levels.

Other national data on dropout is provided by Jaffe and Adams (1970) of the Bureau of Applied Social Research, Columbia University. Their five-year follow-up of 1965-66 high school seniors, though limited by the small size of the sample (N=1,582), provide some interesting, although necessarily speculative, findings. As of the Fall 1968 follow-up (i.e. two years after high school), Jaffe and Adams (1970, p. 24) found that income above $7,500 and father's education were both positively and significantly related to

persistence in college at the .05 and .001 levels respectively. Therefore while both measures of social status prove to be significantly related to persistence, educational level was clearly at a higher level of significance than was income. Again, ability, in this instance as measured by high school grades, proved to positively and significantly related to academic persistence.[5]

Data from the third follow-up, provided to the reviewers by Jaffe and Adams, indicated that persistence remained related to ability and social status, in this case to income, occupational, and educational measures of family social status (Tables 2, 3, and 4). Though of a speculative nature due to differences in categorization, it is interesting to note that father's educational level was, of these three separate measures of social status, best able to distinguish differences in persistence among individuals of differing social status categories, especially at the four-year colleges.

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Tables 2, 3, and 4

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The relationship between dropping out and father's education as a measure of social status deserves special consideration in that it suggests intergenerational patterns in college completion. As previously noted by

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[5]Interestingly, Jaffe and Adams find that being in a college preparatory program in high school proved to be the single strongest predictor of college persistence. Undoubtedly, this arises largely from the interaction between motivations, performance, and social status.

TABLE 2

PERSISTENCE IN COLLEGE*, 1970, BY FATHER'S EDUCATION, TWO- AND FOUR-YEAR INSTITUTIONS

Father's Education	All Institutions	Two-Year Institutions	Four-Year Institutions
Less than 12 Years	60.5%	41.0%	68.7%
12 Years	69.4%	43.2%	75.0%
1 to 3 Years of College	58.5%	56.5%	60.3%
4 or more Years of College	78.6%	33.3%**	85.2%

SOURCE: Adapted from Jaffe and Adams (1971a, p. 45)

* Persistence includes transfers and graduates by the last or only college attended four years after high school graduation

** Only six cases

TABLE 3

PERSISTENCE IN COLLEGE*, 1970, BY FATHER'S OCCUPATION, TWO- and FOUR-YEAR INSTITUTIONS

Father's Occupation	All Institutions	Two-Year Institutions	Four-Year Institutions
White Collar	71.8%	43.1%	77.4%
Other	63.6%	46.6%	69.5%

SOURCE: Adapted from Jaffe and Adams (1971a, p. 44)
*Persistence includes transfers and graduates by the last or only college attended four years after high school graduation

TABLE 4

PERSISTENCE IN COLLEGE*, 1970, BY FATHER'S INCOME, TWO- AND FOUR-YEAR INSTITUTIONS

Father's Income	All Institutions	Two-Year Institutions	Four-Year Institutions
Less than $6,000	60.1%	35.9%	72.7%
$6,000 to $9,999	70.6%	52.4%	74.6%
More than $10,000	72.7%	44.4%	77.5%

SOURCE: Adapted from Jaffe and Adams (1971a, p. 43)
*Persistence includes transfers and graduates by the last or only college attended four years after high school graduation

Jaffe and Adams (1970, p. 14) in their analysis of the 1968 findings, the lowest persistence rates were found among students having fathers with some college education but less than a college degree. Given numerous studies showing that significantly higher economic returns from higher education occur at the completion of the degree (Hansen, 1963), a family head with only a partially completed degree would not have received as great a return on his investment in college education as would a person having completed his degree and not much more than a person who had terminated his education after high school. This being the case, the results of Table 2 implies an intimate relationship between the actual returns from college education experienced by the parents and both their perceptions of the value of college education and the persistence of their children in college. Indeed other studies, to be discussed in later sections of this report, reinforce this impression.

From the fourth follow-up of the 1966 high school seniors (i.e. four years after high school), Jaffe and Adams (1972a) present data for rates of dropout, graduation, and current enrollment among individuals of different social status categories, again as measured by father's education, income, and occupation (Tables 5, 6, and 7).

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Tables 5, 6, and 7

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Essentially the same relationships hold as were found in the third follow-up; that is persistence in college is related to each of the measures of

TABLE 5

EDUCATIONAL STATUS, 1971, BY FATHER'S EDUCATION

Educational Status	Father's Education: Less than 12 Years	12 Years	13 to 15 Years	16 or more Years	Total
Some College	37% (47)	39% (67)	43% (29)	24% (26)	36%
College Graduate	37% (46)	43% (73)	35% (24)	54% (59)	43%
Currently Enrolled	26% (33)	18% (31)	22% (18)	22% (24)	21%

SOURCE: Adapted from Jaffe and Adams (1972a, p. A-17, Table 7b)

TABLE 6

EDUCATIONAL STATUS, 1971, BY FATHER'S OCCUPATION

Educational Status	Father's Occupation		Total
	White Collar	Other	
Some College	30% (80)	40% (99)	35%
College Graduate	49% (132)	37% (91)	43%
Currently Enrolled	21% (56)	23% (57)	22%

SOURCE: Adapted from Jaffe and Adams (1972a, p. A-18, Table 7c)

TABLE 7

EDUCATIONAL STATUS, 1971, BY FAMILY INCOME

Educational Status	Family Income: Less than $5,000	$5,000 to $9,999	$10,000 and over	Total
Some College	44% (34)	40% (98)	35% (66)	39%
College Graduate	31% (24)	41% (100)	44% (84)	40%
Currently Enrolled	25% (19)	19% (45)	21% (41)	21%

SOURCE: Adapted from Jaffe and Adams (1972a, p. A-23, Table 10c)

family social status with father's education accounting for the greatest difference in rates of persistence. With regard to these differences, Jaffe and Adams (1972a, p. 12) advise caution in the interpretation in these data due to sample attrition. They estimate that most of this attrition tends to be from respondents of lower social status backgrounds. For our purposes here, this implies that these data underestimate the overall effect of social status upon college attrition since non-respondents had characteristics similar to those of dropouts.

Unfortunately limitation in sample size did not permit the reviewer to isolate the separate effects of social status and ability upon college persistence. For this reason alone, results of the above calculations should be taken to be indicative of trends rather than of predictable quantitative differences in persistence. Nevertheless, concerning the pre-and post-1965 trends, a very rough comparison with the enrollment model developed by Froomkin and Pfeferman (n.d.) suggests that the overall effect of income upon college persistence has not changed significantly (Figure 2). While this is necessarily a gross approximation, a comparison of both sets of data at the respective medium incomes for each beginning year reveals that though the overall trend seems about the same, the percentage of dropouts appears to have increased.[6]

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Figure 2

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[6]This might be explained away, however, because the Jaffe and Adams data show a completion rate while the OPBE model is basically a persistence rate which includes both those who have already completed college and those who are still in college who may or may not complete college. In this respect, the latter data tends to overestimate the actual attainment of the college degree.

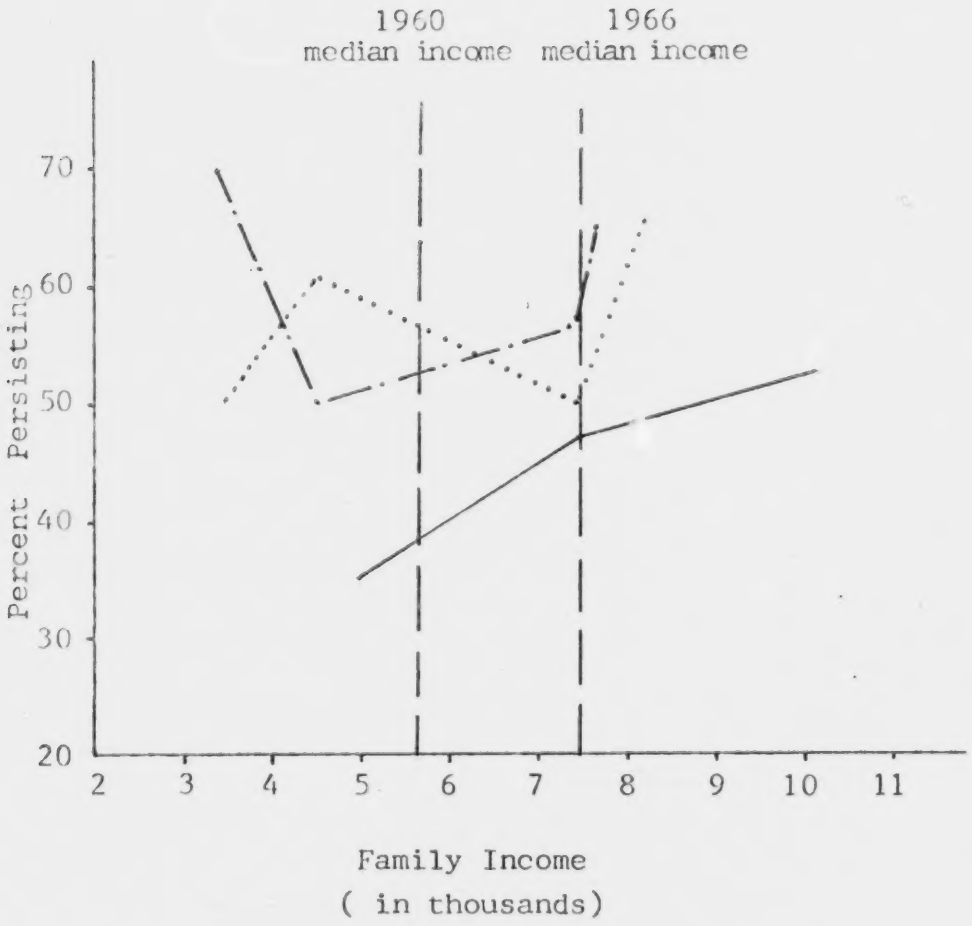

FIGURE 2

PERSISTENCE AFTER FOUR YEARS: BY FATHER'S INCOME

SOURCES: (1) Jaffe and Adams(1972) ———
(2) OPBE Analysis Paper-females .....
(3) OPBE Analysis Paper-males .—.—.—.
note : For both studies, income ranges are averaged.

It is also interesting to note that the distribution of the OPBE data more closely resembles the bimodal distribution of the Jaffe and Adams tabulations for father's education and college persistence. Speculatively, we argue that this might suggest that, as the incomes of families with college and non-college education converge, other factors related to social status become more prominent in the motivation to continue in college (later discussed as goal commitment). This may also imply that though family income was a reasonably accurate predictor of the effect of social status upon college persistence in 1960, it is increasingly becoming less accurate. Again it is suggested that family income tends to underestimate the total effect of social status upon college attrition. Given the recent effect of unions upon the earnings of the blue-collar workers, we would expect this underestimation to be greatest at the lower social status levels.

Other national data from the American Council on Education have been analyzed by A. Astin (1972). His study represents a 1970 follow-up of over 15,000 1966 college entrants from over 200 institutions of higher education. Though Astin finds no relationship between either income or father's education and dropout, the study is subject to numerous problems which limit its utility. In particular, the use of over 130 independent variables in regression equations based upon no more than 250 respondents in each institution raises serious questions as to the ability of such an equation to measure the effect of father's education upon persistence.[7]

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[7]Father's education, for instance, was placed twenty-fifth into the regression equation with a total of 134 independent predictor variables.

Although Astin does not present the ACE data in tabular form, this has been done by Van Alstyne (1973). Table 8 presents some of these preliminary data on the effect of family income upon attrition in different types of institutions.[8] Given the failure to control for individual ability in these preliminary calculations, it is rather difficult to

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Table 8

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interpret these data. But since one can reasonably expect, as a result of the long-term selection process in education, that very lowest income students in college (especially in four-year colleges) are of both higher average ability and motivational level than other income groups in college, these most recent data suggest that income is still somewhat related to persistence in college, especially in private four-year institutions of higher education.

Dropout: Trends in Different Institutions

It is generally conceded that social status is a major determinant of college entrance (Jencks, 1968; and Sewell and Shah, 1967). However, as college entrance becomes increasingly more "open," we would expect, given a wider distribution of ability and motivational characteristics among entrants, that the social selection function of higher education will increasingly take place within the colleges and universities rather

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[8] It must be noted that these data are preliminary and may be changed somewhat in the final version of the study.

TABLE 8

PERCENTAGE DROPOUT*, 1970, BY 1966
FAMILY INCOME, INSTITUTIONAL TYPE AND CONTROLS

Type and Control	All Income Levels	Less than $4,000	$4,000 to $5,999	$6,000 to $7,999	$8,000 to $9,999	$10,000 to $14,999	$15,000 to $19,999	$20,000 to $24,999	$25,000 to $29,999	$30,000 and over	No idea
All Institutions	23.9	23.9	25.7	24.2	24.8	24.0	22.0	18.9	18.6	20.4	24.7
Public Institutions	26.4										
Universities	25,4	20.8	30.8	25.9	28.5	25.2	23.2	16.6	22.9	20.1	26.7
Four-Year	23.3	24.2	23.4	23.7	22.4	22.9	24.0	20.4	21.7	14.6	25.1
Two-Year	30.3	26.2	30.0	27.2	28.9	30.9	27.6	36.0	33.7	49.8	33.6
Private Institutions	18.3										
Universities	14.8	21.2	20.0	13.9	15.2	15.8	13.7	13.4	10.8	14.7	13.9
Four-Year	17.5	23.1	19.3	15.6	19.5	16.5	15.5	14.7	13.8	13.7	17.0
Two-Year	23.6	24.5	21,0	22.8	24.8	27.9	27.1	16.9	13.0	37.6	20.6

SOURCE: Preliminary table, Van Alstyne (1973)
*Dropout is defined as a student who is out of school permanently or temporarily without having obtained an AA or BA degree

than between high school and the college (Karabel and Astin, 1972). For our purposes here, this would imply not only an increasing overall drop-out rate but also an increase in the association between an individual's social status and persistence in college.

Why then do most studies indicate no overall change in the effect of social status upon persistence? Basically, this is an artifact of considering, as these studies do, the attainment of an associate's degree equal to the attainment of the bachelor's degree (e.g. Astin, 1972). But though this may be adequate for statistical purposes, it is hardly acceptable when policy considerations are involved. In a recent paper, Karabel and Astin (1972) present data from the ACE studies showing a small but independent effect of social status on the quality of college entered; that is, the higher the person's social status, the more likely is he, upon entering college, to attend a four-year rather than a two-year college. In effect they argue that the role-allocation function of higher education is developing in a manner similar to tracking in high school. Thus, as higher social status students are more likely to be enrolled in the college preparatory curriculum in high school, they are also more likely to be enrolled in the graduate school preparatory programs in higher education, namely the four-year colleges. But attendance at a four-year college not only enhances the probability of completing a degree program (Astin, 1972), it also substantially increases the probability, relative to entrance at a two-year college, of attaining a four-year degree (Berls, 1969). The effect, then, of social status upon the completion of a four-year college is even greater than suggested by the studies cited earlier.

Coupling these fairly consistent research findings with an analysis of the recent trends in enrollment in different types of higher educational institutions, we should be able to draw some implications as to the changing effect of social status on the persistence of individuals to the completion of the bachelor's degree (Table 9). Given the problem of developing comparable income categories, it seems clear that while access to college has

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Table 9

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becoming increasingly more "open," the proportionate enrollment gains by persons of family income below the median has differed in the two and four-year institutions. The proportionate enrollment gains by these persons in the four-year colleges was six percent while in the two-year colleges it was nearly twice that much. However, being below the median income does not imply necessarily that one is lower social status. Being below the median income level simply implies that such individuals come from families whose status ranges from low to near the middle of the social status hierarchy. Therefore, that these persons have shown proportionate gains in college entrance, does not necessarily imply that lower social status persons have made such gains. Indeed, Jencks (1968) demonstrates that much of the recent gains in enrollment at the two-year colleges has been made by persons from middle and lower-middle class families. While lower status persons have also made gains in enrollment in these institutions, they are not of the proportionate magnitude as are the gains of the lower-middle class. It is probable

TABLE 9

PROPORTION ENROLLED IN COLLEGE, 1966 AND 1969, BY INSTITUTIONAL TYPE, AND APPROXIMATE ABOVE AND BELOW THE POPULATION MEDIAN INCOME

	All Institutions	All Two-Year Institutions	All Four-Year Institutions	
(1966)	36.8	42.1	37.6	Below $7,999
	63.2	58.0	62.4	Above $7,999
(1969)	44.5	53.2	43.6	Below $9,999
	55.4	46.9	56.4	Above $9,999

SOURCES: Adapted from Panos et.al.(1966, p. 23), and Creager et.al.(1969, p. 39).
*Population median income in 1966 was $7,500.
**Population median income in 1969 was $9,433.

then, that the data in Table 9 are also so distributed among the lower-middle and lower social status groups.

In any case, these data do suggest that most of the "gains" in enrollment for persons of lower and lower-middle social status categories are occurring disproportionately at the two-year colleges. Since the likelihood of attaining a four-year degree after entering a two-year institution is considerably lower than it is upon entering a four-year college, it is probable that the overall effect of social status on completing a four-year degree program is increasing while, at the same time, the effect of social status upon entry is decreasing.

This conclusion is essentially similar to that reached by Jencks (1968), Spady (1967), and Tinto (1971). That is, although access to higher education is becoming easier for individuals of lower social status backgrounds, it is doubtful whether lower social status persons are making any proportional gains in four-year college completion relative to their higher status counterparts.

Dropout in the Future

The basic question for the future seems to be, can higher education continue to perform a selection and allocation function for occupational and social mobility while also providing for effective education? Karabel and Astin (1972) seem to think that the answer is a qualified yes, and that differential institutional quality will perform a tracking function similar to that found in the comprehensive high school. Jaffe and Adams (1971b) caution, however, that to avoid "massive dropout" higher education

might have to move in the direction of many high schools which have offered, in effect, "academic amnesty" even until graduation.

Taking open enrollment systems in California and New York City as symptomatic of the future, Jaffe and Adams (1972b) support their earlier contention that increased entrance produces increased attrition. For example, in California where nearly 70% of the high school seniors enter college, Jaffe and Adams find only 19 to 28% of the entrants actually complete the baccalaureate. The Open Enrollment Program of the City University of New York also seems to have the same problems. After the first year of open enrollment, regularly admitted students had an attrition rate of 19.7% as compared to 35.8% for open admission students. While data for the New York system have yet to appear, data for California suggest that there has not been any proportionate gain in rates of four-year college and university completion as a result of the past expansion of the higher educational system.

Although conclusions with regard to the future are necessarily speculative, the basic "feelings" of most of those who have studied drop-out is aptly summed up by A. Astin (1973, p. 24). He writes:

> To begin with, there seems to be little question that the continuing expansion of educational opportunities, as represented by trends such as open admissions and special admissions and special programs for disadvantaged students will result in much larger numbers of 'dropout-prone' students entering the higher educational system. . . Consequently, unless special accommodations for these 'new' students are made . . . there seems to be little question that the national dropout rates will increase simply as the result of these changes in the entering student population.

The Dimensions of Dropout: A Summary

While necessarily speculative due to the diversified nature of the available data, it seems that some general conclusions can be drawn as to dropout in higher education since 1965. First, choosing income or any other single measure of social status most likely underestimates the total effect of social status on college persistence. The degree of underestimation being greatest when family income is employed to measure social status and probably least when parental education is used. Second, it seems as if the overall attrition rate has increased somewhat since 1965 and will continue to do so as long as undergraduate education performs selection functions with regard to future social mobility. As college entrance becomes increasingly more open, the pressures for selection and differentiation among individuals necessitates that the selection process occurs increasingly within the system, among institutions of differing quality. Third, given that the proportionate gains in the number of persons from lower status families, who are less motivated, and who are of lower ability, will be primarily in the two-year colleges, most of the increases in attrition will undoubtedly occur in the first two years of higher education. Therefore it is also likely that the effect of social status upon the completion of the four-year degree will also increase. Fourth, because family income is increasingly less able to measure the effect of social status upon dropout, it is also likely that models employing income as a measure of social status will increasingly underestimate the effect of social status upon dropout, especially when

dropout is defined as the failure to complete a four-year degree program. Finally, it is recommended that H.E.W. make use of the detailed and wide-ranging data available in the American Council on Education data files. Use of this continually gathered data, could lead to the development of drop prediction models which are constantly updated for a wide variety of institutional types. Until recently these data have been surprisingly under-utilized.

III. DROPOUT AS PROCESS: A THEORETICAL MODEL

To know to what degree an individual's measured ability and social status relates to the probability of his dropping out of college is not, however, to know how these attributes affect the process of dropout. Whereas the former requires little more than a simple comparison of the rates of dropout among individuals of differing ability and social status, knowledge of the latter requires the development of a theoretical model linking various individual and institutional characteristics to the process of dropout. Having dealt with the former in the preceding chapter, the report now turns to the development of such a theoretical model not only as a means of synthesizing a large number of recent studies but also as a means of suggesting in which direction future research might be most fruitfully directed.

The theoretical model of dropout to be developed in the following pages springs from two distinct theories of human behavior; Durkheim's sociological theory of suicide and the theory of cost-benefits analysis as originally derived in economics.[1]

Durkheim's Theory of Suicide as Applied to Dropout

According to Durkheim (1961) breaking one's ties with a social system stems largely from a lack of integration into the common life of that society. Given the notion that societies are composed of both

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[1]Credit must be given to William Spady (1970) for being the first person to apply Durkheim's theory of suicide to the problem of dropout from college.

structural and value elements. Durkheim argued that the likelihood of complete withdrawal from society (suicide) increases when two kinds of integration are lacking; insufficient moral (value) integration and insufficient collective affiliation through person-person interactions (structural). Though these modes of integration are conceptually distinct, they are necessarily related in that value or normative integration can lead to increased friendship support and vice versa.

When viewing the college as a social system with its own value patterns and social structure, one can treat withdrawal from that social system in a manner analogous to that of suicide withdrawal from the wider society. And though dropping out is clearly a less extreme form of withdrawal than is suicide, one might expect that social conditions affecting dropout in the social system of the college should, in many ways, parallel those that result in "dropout" from the wider society; namely the lack of consistent and rewarding interaction with others in the college (e.g. friendship support) and the holding of value patterns that are dissimilar from those of the general social collectivity of the college. Presumably, lack of integration into the social system of the college will result in low commitment to the institution and increase the probability that individuals will dropout.

But in the social system of the college, more than in the wider society, it is important to distinguish between normative and structural integration in areas relating to occupational performance from those pertaining to areas external to the job. Specifically, in dealing with dropout from college it is important to distinguish between normative

and structural integration in the academic domain of the college from that in the social structure of the college. Such distinctions are required because withdrawal from college can arise either from voluntary withdrawal (like suicide) or from forced withdrawal (dismissal) which arises primarily, though not necessarily, from poor grade performance. This separation of the academic from the social domain further suggests that a person may achieve integration into one area of the college without doing so in the other. Thus a person can conceivably be integrated into the social domain of the college, and thereby become committed to the institution, and still dropout from insufficient integration in the academic domain of the college through poor grade performance. Conversely, a person can achieve high grades and still decide to withdraw when insufficient social integration exists. In the college then, dropout may be either voluntary or forced and may arise from either insufficient academic integration or insufficient social integration.

Cost-Benefit Analysis as Applied to Dropout

Recognizing however, that events in the social system external to the college can affect integration within the more limited social system of the college, it is necessary to take account of the fact that persons may withdraw from college for reasons that may have little to do with interaction within the college itself. To deal with this possibility the theoretical model proposed here includes the notion that individual decisions, with regard to any form of activity, can be

analyzed in terms of the perceived costs and benefits of that activity relative to perceived alternative activities. Specifically, the theory of cost-benefits argues that individuals will direct their activities toward those areas of endeavor which are perceived to maximize the ratio of benefits to costs.[2] With regard to staying in college, this viewpoint argues that persons will tend to withdraw from college when he perceives that an alternative form of investment of time, energies, and resources will yield greater benefits, relative to costs, than does staying in college.

The theoretical model suggested here thus takes account of the variety of external forces which affect a person's decision as to staying in college. For instance, it permits one to include the effects of changing supply and demand in the job market on rates of dropout, while also taking account of the existence of restrictions (e.g. through discrimination) which may limit individuals from investing in alternative forms of activity even though that activity may be perceived as being potentially more rewarding. With regard to the former, a reduction in the supply of available jobs may lead individuals to perceive a decreased likelihood that energies invested in the present in college will yield acceptable returns in the future. That being the case, individuals may decide to dropout of college (voluntary withdrawal) in order to invest their time and energies in alternative forms of activity even though

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[2]The theory of cost-benefit analysis as employed here takes both costs and benefits to include social as well as economic factors.

their experience in college may have been, to that point, entirely satisfactory. Conversely, the model also accepts the fact that persons may stay in college because of restrictions on alternative forms of activity. Easing of restrictions may then lead to noticeable changes in rates of dropout even though there are no noticeable changes in the quantity and quality of individual interaction within the college environment. The recent upsurge in the movement of more able blacks from black colleges to largely white institutions of higher education appears to be just such an occurrence as seems to be the increased rates of dropout after the repeal of the draft law.

Finally, the theoretical model proposed here accepts as central to the process of dropout the notion that perceptions of reality have real effects on the observer, and, for a variety of reasons, persons of varying characteristics may hold differing perceptions of apparently similar situations. In both integration into the academic and social systems of the college and in the evaluation of the costs and benefits of alternative forms of activity, it is the perceptions of the individual that are important. Since perceptions are, in turn, influenced by both the characteristics of the individual (e.g. family background, ability, goal commitment, values, etc.) and the characteristics of his collegiate environment (e.g. size, quality, peer-group composition, etc.), it is clear that this model must also take account of these attributes in a manner which allows for the simultaneous interaction between the individual and the institution.

A Theoretical Model of Dropout

The theoretical model developed here suggests then that dropout is a multidimensional process which results from the interaction between the individual and the institution and which is influenced by the characteristics of both elements. The basic elements of this model are diagrammed in Figure I in a manner which suggests that there exists a longitudinal dimension to the process of dropout.[3] Specifically, it is argued that individuals enter institutions of higher education with a variety of individual characteristics, family backgrounds, and prior educational experiences which influence the manner in which the individual interacts within the college setting. More importantly, these attributes also influence the expectations and motivations for additional education which individuals bring with them into the college environment. Referred to here as goal commitment, it is this factor which is argued to be central to an individual's decision to dropout of higher education. Presumably, the higher the level of an individual's commitment to the goal of college completion, the lower the likelihood that an individual will dropout of college.

Given individual characteristics, prior experiences, and goal commitment, it is the individual's integration into the college environment which most directly relates to continuance in college. As noted above, this integration results from varying degrees of both normative

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[3]While the paths between the diagrammed elements suggests path analysis, the diagram is not a path model. It is implied, however, that path analysis is indeed appropriate to the study of dropout as an interactive process.

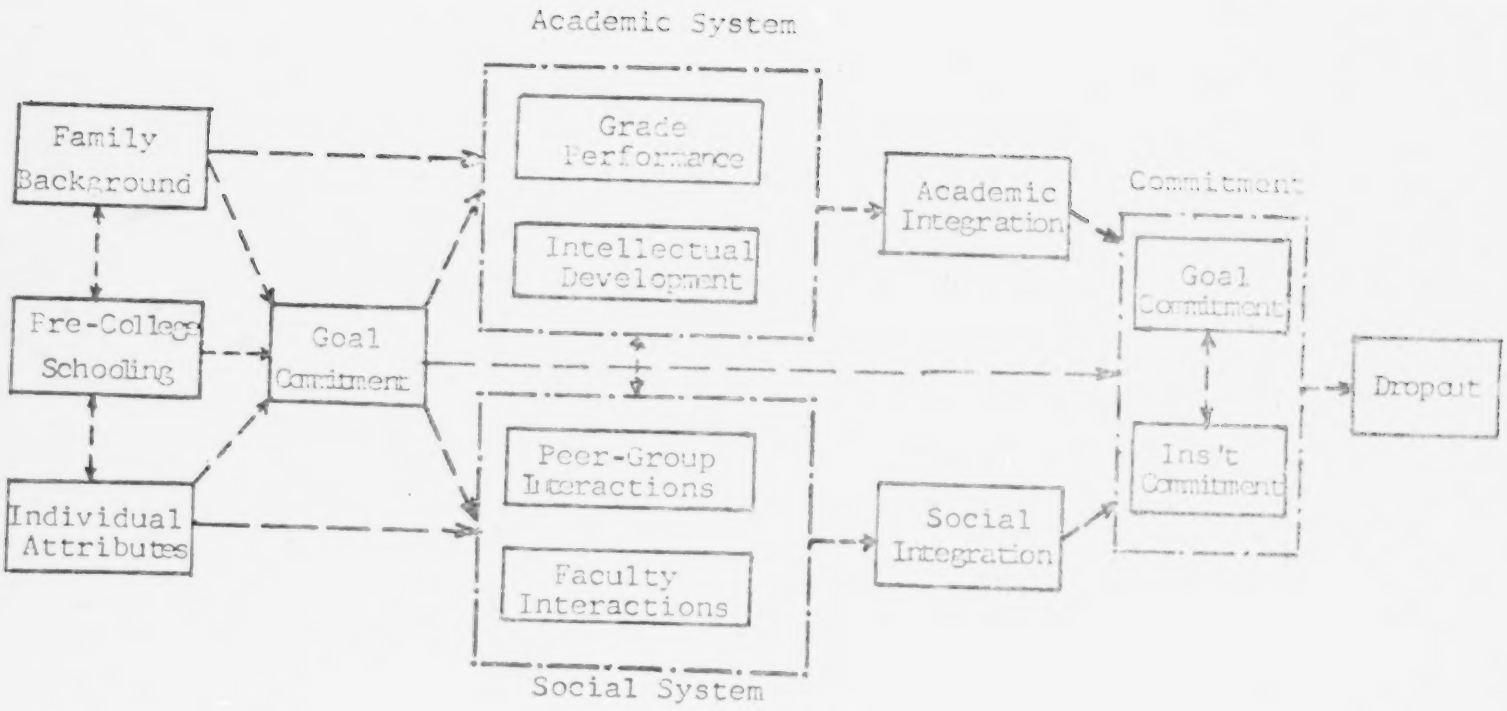

FIGURE 3

A CONCEPTUAL SCHEMA FOR DROPOUT IN COLLEGE

and structural integration into the academic and social systems of the college. Given prior goal commitment, it is the integration of the individual into these collegiate systems which leads to new levels of goal commitment and to varying degrees of institutional commitment. Other things being equal, the higher the degree of integration of the individual into the college, the greater will be his commitment to the specific institution and to the goal of college completion.

Referred to as institutional commitment, it is the interaction between the individual's commitment to the goal of college completion and his commitment to the institution which determines whether or not the individual decides to dropout from college. Presumably, either low goal commitment or low institutional commitment can lead to dropout. Given prior commitment to the goal of college completion, the lower an individual's institutional commitment the more likely is he to dropout from that institution. Whether or not he transfers to another institution or simply leaves higher education altogether depends primarily upon the varying levels of both institutional and goal commitment. Sufficiently high commitment to the goal of college completion, even with minimal levels of academic and/or social integration and therefore institutional commitment might not lead to dropout from the institution. The individual, in this case, might decide to "stick it out" until the completion of the college degree. At the same time, insufficient integration and therefore institutional commitment can also lead to transfer to another institution of higher education. Depending on a variety of factors, specifically the

person's commitment to the goal of college completion, the individual may transfer to an institution of comparable level or to one of a lower level (e.g. from a four-year to a two-year institution).

Given levels of institutional commitment, the lower the individual's commitment to the goal of college completion the more likely is he to dropout. Either as a result of changing external conditions in the job market which affect the "value" of the goal in the occupational sphere, or as a result of the individual's re-evaluation of the goal itself, the individual may decide to withdraw from the college despite having become integrated into the institution. Voluntary withdrawal, rather than dismissal, is generally the outcome. Sufficiently high levels of institutional commitment, however, may lead individuals to remain in college even though they are little committed to the goal of college completion. In effect, the benefits of one's current experience in college balance out the perceived minimal benefits of the college degree in the external social system. The phenomena of "getting by" is often the result.

Having described the basic elements of the theoretical model, the report now turns to a synthesis of recent research on dropout from college. The synthesis will attempt not only to fill in, with research findings, the various relational elements in the dropout process but also to develop suggestions for further research on dropout from college. It should be noted beforehand, that despite the very large volume of recent studies on dropout, there have been a few multivariate analyses which permit the reviewers to isolate the independent effects of various factors on college

dropout. This being the case, the synthesis that follows contains, in a number of instances, interpretations by the reviewers of the implications of various studies on the process of dropout even when those implications are not immediately derivable from the studies themselves

IV. DROPOUT AS PROCESS: SYNTHESIS OF RECENT RESEARCH

Having broadly described the basic elements of the theoretical model, the report now turns to a synthesis, in terms of this model, of recent research on dropout from college. Attention will be turned first to those characteristics of individuals which appear to be related to their persistence in college, then to the characteristics associated with individuals' interaction within the college setting, and finally to the characteristics of institutions of higher education which have also been associated with dropout from college.

Individual Characteristics and College Dropout

Of those characteristics of individuals which have been shown to be related to dropout, the more important pertain to the characteristics of the individual himself, the characteristics of his family, his educational experiences prior to college entry, and his commitment to the goal of college completion.

Family Background

As has been true in other areas of educational performance, the likelihood of an individual's dropping out from college has been shown to be related to the characteristics of the family. Put in general terms, the family's socioeconomic status appears to be inversely related to dropout (Astin, 1964; Eckland, 1964; Lembesis, 1965; McCammon, 1965; Panos and Astin, 1968; Sewell and Shah, 1967; Wegner, 1967; and Wolford,

1964). Specifically, children from lower status families exhibit higher rates of dropout than do children of higher status families even when intelligence has been taken into account (Sewell and Shah, 1967).

Such general findings with regard to family, and therefore student social status, pertain as well to the numerous, more specific, findings which cite particular family attributes as being related to the child's persistence in college. To summarize these findings, it seems that college persisters are more likely to come from families whose parents are more educated (Chase, 1970; Cope, 1968; Cope and Hewitt, 1969; Fenstemacher, 1973; Jaffe and Adams, 1970; and Spady, 1971), are more urbane (Gurin, et. al., 1968; and Iffert, 1958), and are more affluent (Eckland, 1964; Iffert, 1958; and Van Alstyne, 1973). In this latter aspect, Astin (1972) suggests that family income alone is becoming increasingly less a determinant of college persistence. As shall be discussed in a following section, this may be attributed, among other things, to the fact that an increasing number of dropouts are voluntary withdrawals.

Additional research has indicated that other factors associated with family background are also important to the child's educational attainment and performance in college. The most important of these factors are the quality of relationships within the family, and the interest and expectations parents have for their children's education. With regard to the former, college persisters tend to come from families whose parents tend to enjoy more open, democratic, supportive, and less conflicted relationships with their children (Congdon, 1964; Merrill, 1964;

Trent and Ruyle, 1965; and Weigand, 1967). With regard to the latter, college persisters seem not only to get more parental advice, praise, and expressed interest in their college experience (Trent and Ruyle, 1965), but also have parents who express greater expectations for their further education (Hackman and Dysinger, 1970). In this respect, it appears that parental levels of expectations may have as much influence upon the child's persistence in college as does the child's own expectations for himself (Hackman and Dysinger, 1970).

Individual Characteristics

But as important as the family is in determining the child's educational performance, at the college level it is quite clear that the child's own ability is even more important (Sewell and Shah, 1967; Wegner and Sewell, 1970; and Wegner, 1967). Sewell and Shah (1967), for instance, found that measured ability was nearly twice as important in accounting for dropout as was the social status of the family. While measured ability is undoubtedly related to persistence in college, most research on dropout has focused on ability as demonstrated through grade performance in high school and has shown that it to is related to persistence in college (Blanchfield, 1971; Chase, 1970; Coker, 1968; Jaffe and Adams, 1970; Lavin, 1965; Lawhorn, 1971; Panos and Astin, 1968; Smith, 1971; and Taylor and Hanson, 1970). Ability as measured on a standardized test and ability as demonstrated in high school grades, are, however, measures of different aspects of individual competence. Of the two, past grade performance tends to be the better predictor of

success in college if only because it more closely corresponds to the individual's ability to achieve within an educational setting whose academic and social requirements are not too different from that of the college (Astin, 1972).

Ability, however measured, is but one of a number of individual characteristics found to be associated with college persistence. Though not of the importance of ability, studies have indicated significant personality and attitudinal differences between college persisters and college dropouts (Pervin, et. al., 1966).[1] Vaughan (1968) suggests that dropouts tend to be more implusive than persisters, lacking in any deep emotional commitment to education, and unable to profit as much from past experience. This latter lack of flexibility in dealing with changing circumstances is also cited by E. S. Jones (1955) and Lavin (1965) as characteristic of college dropouts relative to college persisters. Dropouts also seem to be more unstable, more anxious, and overly active and restless relative to their successful college counterparts (Grac.. 1957; Grande and Simmons, 1967; and Vaughan, 1968). In all, research suggests that personality characteristics of dropouts are such as to make more difficult the level of achievement required in the college setting; that is college dropouts seem to be less "mature" than persisters (Spady, 1970).

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[1]In this respect, it is necessary to point out the existence of a substantial amount of research directed toward the effect of an individual's mental health upon both performance and persistence in college. For example see Farnsworth (1957), Pervin, et. al. (1966), Suczek and Alfert (1966), and Wedge (1958).

Vaughan (1968) points out, however, the need to distinguish between dropouts who are dismissals (academic failures) and dropouts who are voluntary withdrawals. Specifically, college withdrawals tended to manifest greater oversensitivity and egotism than any other group; factors which, in this model, seem to relate more to social integration than to academic integration. On other measures of personality, however, voluntary withdrawals tended to be more like persisters than were dismissals.

Sex of the individual also appears to be related to college persistence. It is fairly clear that despite some recent changes in women's behavior, men more than women face the necessity of establishing a position in the occupational structure. For women the decision to pursue a career is, relatively speaking, less often dictated by social and/or economic necessity. As a result it is probable that women are both freer to deal with college as an intrinsically rewarding experience and face less pressure to complete college (Spady, 1971). Out of pure necessity then, it is understandable that a higher proportion of men finish college degree programs than do women (Astin, 1972; Cope, 1971; Fenstemacher, 1973; and Spady, 1970), whereas a greater proportion of women dropouts tend to be voluntary withdrawals rather than academic dismissals (Lembesis, 1965; Robinson, 1967; and Spady, 1971).

Past Educational Experiences

While past educational experiences have not been explicitly referred to as being directly related to college dropout, it is clear that

performance in high school, as measured either by grade point average or by rank in class, has been shown to be an important predictor of future college performance (Astin, 1971). Moreover, since it is also clear that the characteristics of the high school, such as its facilities and academic staff, are important factors in the individual's achievement (Dyer, 1968), it follows that they would also affect the individual's performance and therefore persistence in college.

From the perspective suggested here, the characteristics of the high school are important because they also affect the individual's aspirations, expectations, and motivations for college education; in other words his goal commitment (Nelson, 1972). As suggested first by Davis (1968) and later by Nelson (1972) and St. John (1971), the ability and social status composition of the individuals in the school affect not only the individual's perception of his own ability, but also the individual's expectations and aspirations for college education; specifically his commitment to the goal of college completion.

Goal Commitment

As suggested by a number of researchers, once the individual's ability is taken into account, it is the person's commitment to the goal of college completion which is most influencial in determining college persistence. Whether measured in terms of educational plans, educational aspirations, or occupational aspirations, the higher the level of plans the more likely are persons to remain in college (Astin, 1964; Bucklin, 1970; Coker, 1968; Krebs, 1971; Medsker and Trent, 1968;

Sewell and Shah, 1967; Spaeth, 1971; Weigel, 1970; Weigand, 1953; and White, 1971). Sewell and Shah (1967), for instance, found that level of educational plans held by the individual was by far the strongest independent influence upon college completion, once family social status and ability were taken into account. In a somewhat similar vein, Spaeth (1971) demonstrated that the individual's expectations for his future occupational status was, after ability, the single most important independent predictor of actual attainment.

More pertinent to the theoretical model developed here, several [illegible]s have indicated a direct relationship between the level of an individual's commitment to the goal of college completion and persistence in college (Hackman and Dysinger, 1970; Marks, 1967; and Spady, 1970).[2] Hackman and Dysinger (1970), for example, found that it was possible to distinguish between four groups of college students; college persisters, transfers, voluntary withdrawals, and academic dismissals, in terms of their level of commitment to the goal of college completion. Relating this to the difference between male and female dropouts, Gurin, et. al. (1968) note that female dropouts tend to have lower levels of goal commitment relative to persisters than do male dropouts. Since voluntary withdrawal tends to be more common among

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[2]Such findings appear to be related to studies in other areas which suggest a relationship between motivation (Demos, 1968; Pervin, et. al., 1966; and Smith, 1971) and/or need-achievement (Heilburn, 1962; and Stone, 1965) and performance in college. Other theories of motivation (Foote, 1951; and Cullen, 1973) also imply that, if an individual has an identification of himself as a future college graduate, he will in fact be more motivated to the completion of the college degree.

female dropouts than among male dropouts, it is again implied that goal commitment is related to dropout in a manner which distinguishes voluntary withdrawal from academic dismissal.

It should be noted, in this context, that goal commitment is placed after family background and prior educational experiences in the longitudinal theoretical model diagrammed in Figure 3. In so doing, it is suggested that goal commitment is itself a reflection of a multi-dimensional process of interaction between the individual, his family, and his prior experiences in schooling. Specifically, with regard to the question of the importance of the family upon the individual's persistence in college, it is argued that when social status and attitudinal factors, such as goal commitment, are considered simultaneously, the advantages thought to accrue to individuals with particular kinds of attitudes do not exist independently of their family background. After ability, it is the individual's background experiences as measured by the social status of the family, that leads to and accounts for much of the variance in attitudinal differences among individuals. In short, much of the effect of social status upon college dropout is mediated through its affect upon attitudes and values such as goal commitment. Simple measures of social status therefore tend to underestimate its total effect upon persistence in college.

Interaction Within the College Environment

Persistence in college is, however, not simply the outcome of individual characteristics or of prior goal commitment. As developed

here, one must view persistence in college as a longitudinal outcome of an interactive process between the individual and the institution in which he is registered. Assuming unchanging external conditions which may affect an individual's evaluation of the goal of college completion, dropout is viewed as the result of the interaction between an individual with given commitment to the college degree and his integration into the academic and social systems of the college.

With respect to the academic system of the college, it is argued here that an individual's integration can be measured in terms of both the individual's grade performance and his intellectual development during the college experience. While both elements contain structural and normative components, the former relates more directly to the meeting of certain explicit standards of academic performance, while the latter pertains more to the individual's identification with the norms of the academic system.[3]

Academic Integration: Grade Performance

As shown by a large number of studies, an individual's grade performance in college is the single most important factor in his continuation in college (Ammons, 1971; Astin, 1972; Blanchfield, 1971

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[3]Within the academic system, grades are the most visible and most conspicuous form of reward. In this respect they represent the extrinsic rewards of the system which can be used as tangible resources by individuals for future career mobility (Spady, 1971). Intellectual development, on the other hand, represents the intrinsic rewards of the system in that they can be viewed as an integral part of the individual's personal development.

Coker, 1968; Greive, 1970; Kamens, 1971; Jaffe and Adams, 1970; and Mock and Yonge, 1969). It is, however, important to distinguish between dropouts who are academic dismissals and droputs who are voluntary withdrawals because voluntary withdrawals often score higher on various measures of ability and/or grade performance than do college persisters and therefore certainly higher than do academic dismissals (Coker, 1968; Hanson and Taylor, 1970; Rossman and Kirk, 1968; and Vaughan, 1968).

In this respect, Hackman and Dysinger (1970) have been able to distinguish between persisters, transfers, voluntary withdrawals, and dismissals in terms of the interaction between an individual's level of commitment to the goal of college completion and his level of academic (grade) performance. They distinguished several forms of behavior: (1) students with solid academic competence but moderately low commitment to college completion tended to withdraw voluntarily from college, often to transfer to another institution or re-enroll at the same institution at a later date (i.e. stopout); (2) students with poor academic qualifications but moderately high commitment tended to persist in college till completion or until forced to withdraw for academic reasons (i.e. academic dismissal); and (3) students with both low commitment to college completion and moderately low academic competence tended to withdraw from college and not transfer or re-enroll at a later date.

With regard to sex, additional research suggests that though grades do generally relate to college persistence, they tend to be more important for male students than for female students, especially during the first year of college (Coker, 1968; and Spady, 1971).

Academic Integration: Intellectual Development

Intellectual development, as an integral part of personality development of the individual, has also been found to be related to persistence in college. As a composite measure of the general expansion of the individual's intellectual breadth and scope, of the person's ability to think systematically and critically, and of his stimulation in his academic coursework, it represents the individual's subjective identification, and therefore integration, with the intellectual norms of the academic system of the college.

Sarnoff and Raphael (1955), for instance, found that failing students usually were unable to see their college experience as a process of intellectual growth and self-realization. More to the point, Bayer (1968) found that college graduates had higher scores on indices of interest, creativity, and abstract reasoning than college dropouts. In a similar fashion, Daniel (1963), Faunce (1966), and Rose and Elton (1966) all indicate that dropouts either lacked or had failed to develop insight and capacities for self-analytic, critical thinking, or had rejected these processes as important parts of their personalities. From a somewhat different point of view, Medsker and Trent (1968) found that persisters, more than dropouts, were likely to value their college education as a process of gaining knowledge and appreciating ideas than as a process of vocational development. For students at a very selective four-year college, Spady (1971) suggests that this may be more true of females than it is of males. Specifically, Spady found that intellectual

development was more directly related to persistence among females and among males. It was suggested that males, more than females, would be more concerned about the extrinsic rewards of the academic system (grades) than about the intrinsic rewards (intellectual development) as a result of the pressure they feel for future occupational mobility. Similar distinctions between the effect of intellectual development on the persistence of males and females was also noted by Gurin, et. al. (1968).

Summerskill (1962) further suggests that it is not simply the absence or presence of intellectual development which is important in persistence, but the degree of congruency between the intellectual development of the individual and the prevailing intellectual climate of the institution. Indeed, other studies (Dresser, 1971; Hanson and Taylor, 1970; Rootman, 1972; and Rossman and Kirk, 1968) further suggest that this notion of congruence can be used to distinguish voluntary withdrawal from other forms of dropout behavior. Dresser (1971), for example, found that voluntary leavers of both sexes showed significantly higher intellectual interests, as well as academic aptitude, than did persisters. While similar results were recorded by Rossman and Kirk (1968) for students at a major West Coast university, it was further suggested that a similar process may occur at two-year institutions or four-year institutions of lower quality and may lead to transfer to higher quality institutions rather than to simple dropout.

In this respect Rootman (1972) argues that voluntary withdrawal can be viewed as an individual's response to the strain produced by the

lack of "person-role" fit between himself and the normative climate of the institution which establishes certain roles as appropriate to the institution. Voluntary withdrawal then becomes a means of "coping" with the lack of congruency between the individual and his environment. With regard to integration in the academic system through intellectual development, it then follows that insufficient integration may arise from either insufficient intellectual development or insufficient congruency between the intellectual development of the individual and the institution.

Within the academic system of the college then, dropout appears to be related both to academic grade performance and intellectual development, but in apparently different ways for males and females, and for voluntary withdrawals and academic dismissals. And as noted above, the effects of insufficient integration into the academic system upon dropout behavior must be viewed in terms of the individual's commitment to the goal of college completion.

Social Integration: Its Varying Forms

Given prior levels of goal commitment, individual decisions as to persistence in college may also be affected by their integration into the social system of the college. Seen as the interaction between the individual with given sets of characteristics (e.g. family background, values, attitudes, and interests) and other persons of varying characteristics within the college, social integration, like academic integration, implies a notion of congruency between the individual and his social

environment. Integration through informal peer group associations, semi-formal extracurricular activities, and/or contact with faculty and administrative personnel, results in varying degrees of social communication, friendship support, faculty support, and collective affiliation. These, in turn, can be viewed as important social rewards which become part of the person's generalized evaluation of the costs and benefits of college attendance. Other things being equal, social integration should presumably increase the likelihood that the individual will remain in college.

Social Integration: Peer Group Associations

With regard to integration in the social system of the college composed of one's peers, Cope (1969), Cope and Hewitt (1969), Flacks (1963), and Jones (1962), each found that social integration, via friendship support, was directly related to persistence in college. Pervin, et. al. (1967), Rootman (1972), Scott (1971), and Spady (1971), each taking a somewhat "symbolic interactionist" approach, found that individual perceptions of social interaction was directly associated with persistence. Specifically, college dropouts perceived themselves as having lower social interaction than did college persisters.

Both Pervin, et. al. (1967) and Rootman (1972) go one step further and suggest that it is individual perceptions of "social fit" that is important in decisions of dropout. Spady (1971) notes, however, that once perceptions of social interaction (via friendship) are taken into account, perceptions of "social fit" are unimportant in explaining

dropout. This suggests that even when the individual perceives himself as not being congruent with the prevailing social climate of the college (i.e. lack of "social fit"), sufficient friendship support can still lead to social integration. In this respect, Newcomb and Flacks (1964) have observed that "social deviants" (i.e. persons who are deviant with respect to the prevailing normative and social climate of the college) are less likely to dropout if they are able to establish friendships with students similar to themselves.

Social integration, as it pertains to persistence in college, seems then not to imply absolute or even wide-ranging congruence with the prevailing social climate of the institution as much as it does the development, through friendship associations, of sufficient congruency with some part of the social system of the college. Thus the notion of subcultures within colleges. In any case, it does seem as if students with more "conventional" values, attitudes, and interests, are more likely to establish close relationships with a wider-range of peers than are their less conventional counterparts within the college (Spady, 1970).[4]

Absence of any such supportive groups or subcultures is, in turn, more often associated with voluntary withdrawal than it is with dismissal

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[4]The term 'conventional' as employed here refers to the individual's position vis-a-vis his peers within the institution. And though the statement may be valid for the entire population of college students, it is irrelevant here.

(Grande and Simmons, 1967; Hanson and Taylor, 1970; Rootnam, 1972; Rose and Elton, 1966; and Watley, 1965).[5] Hanson and Taylor (1970), for example, using multivariate discriminant analysis, found that academically successful students who withdrew from college scored significantly lower on measures of social relationships than did either persisters or academic dismissals. Part of this difference between withdrawals and dismissals arises from the too often overlooked fact that dropout may arise from excessive social interaction as often as it does from lack of social interaction (Lavin, 1965; O'Shea, 1969; Phillips, 1966; Spady, 1971; and Wallace, 1966). Specifically, excessive interaction in the social domain (e.g. dating) may, beyond a certain point, tend to detract from time spent on academic studies and therefore lead to lower academic performance and eventual academic dismissal. Voluntary withdrawal rarely occurs as a result of such excessive social interaction.

Whether excessive social interaction leads to poor academic performance seems, however, to be a function of the types of persons with whom the interaction occurs. Lavin (1965) and Nasatir (1969) argue that some of the strain between the demands of the academic system

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[5]Results of studies on the effect of social integration upon males and females have shown little consistent difference between sexes (Brown, 1960; Newcomb and Flacks, 1964; and Reed, 1968). Some evidence, however, suggests that the effect of insufficient social integration among males tends to mediated through its effect upon grade performance, while among females its effect appears to occur through its influence upon intellectual development (Spady, 1971). Though no further data exist in this realm, one can only hypothesize that the effects of social integration upon males and females is a function of the sexual composition of the institution.

and those of the social system of the college may be alleviated if friendship ties are established with persons having strong academic orientation. In this way academic and social system influences may coalesce, providing opportunities for both social interaction and mutual assistance. Conversely, Malloy (1984) suggests that the reverse may be true if the friendship ties are with persons who themselves are underachievers. In this respect, college fraternities are often thought to reduce members' academic performance not only because of the great deal of time taken up in social activities, but also because fraternity members are thought to be disinclined toward academic achievement.

Given then, the importance of academic integration (especially grade performance) in persistence in college, social interaction with one's peers (through friendship associations) can both assist and detract from continuation in college. Insufficient social interaction seems to lead primarily to voluntary withdrawal, while excessive social interaction may, in some cases, lead to dropout if the group with whom one associates is itself disinclined toward academic achievement or if the intensity of interaction detracts from time spent on academic studies.

Social Integration: Extracurricular Activities

Social integration through extracurricular activities appears, however, to have no such deleterious effects upon academic performance or persistence in college. Studies by Bemis (1962), Chase (1970),

Goble (1957), Spady (1971), Stone (1965), and Wolford (1964) all find that participation in extracurricular activities, for both sexes, is directly related to college persistence. Presumably, participation in these semi-formal and formal institutional activities provides a major link to the social and academic systems of the college, and as suggested above with regard to certain types of peer group associations, may help reduce the strain between the demands of the two systems. More importantly, extracurricular activities may provide both social and academic rewards which heighten the person's commitment to the institution and therefore, other things being equal, reduce the probability of his dropping out (Spady, 1971).

Social Integration: Faculty Associations

The social system of the college consist not only of other students, but also of faculty and administrative personnel. Given the faculty's more intimate association with the academic system of the college, it is not surprising that a number of studies have found that social interaction with the college's faculty is related to persistence in that college (Centra and Rock, 1971; Gamson, 1966; Gekoski and Schwartz, 1967; Spady, 1971; and Vreeland and Bidwell, 1966). Spady (1971) suggests that these findings arise from the fact that interaction with the faculty not only increases social integration and therefore institutional commitment, but also increases the individual's intellectual development. Given the greater importance of intellectual development for female persistence in college, it follows that interaction with the faculty, in certain

cases, may be more important for females than for males.[6] While this may be true, both Gamson (1966) and Vreeland and Bidwell (1966) argue that student interaction with the faculty is more important in the student's major area than it is in other areas not only because of the former's proximity to the interests of the student but also because of its potential impact upon his future occupational mobility. Again, a differential impact upon males and females is implied.

Social Integration and Institutional Commitment

Of the varying forms of social interaction within the social system of the college, peer-group associations (friendship support) appear to be the most directly related to individual social integration, while peer-group, extracurricular, and faculty interactions appear to be of roughly equal importance in developing commitments to the institution. And more than any single mode of social integration, it is the individual's commitment to the institution which is most directly related to persistence in colleges (Spady, 1971). Assuming high goal commitment, the individual's commitment to the institution may mean the difference between transfer and persistence. Assuming low goal commitment, institutional commitment may mean the difference between persistence or permanent dropout from higher education. In any case, it is suggested that lack of institutional commitment is, in itself, insufficient to

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[6]Caution must be taken in making these interpretations because of the nature of the data upon which the cited study was based. Being a very selective college, neither the students nor the faculty can be said to be representative of the wider student and faculty population.

explain dropout. Sufficiently high goal commitment may lead to persistence within the institution even when little commitment to the institution is present. The phenomena of "sticking it out" may be just such a case.

Institutional Characteristics and Dropout

Since dropout is the outcome of a multidimensional process involving the interaction between the individual and the institution, it is not surprising that the characteristics of the institution, even at the aggregate level, have also been shown to relate to differential rates of dropout. It is the characteristics of the institution; its resources, facilities, structural arrangements, and composition of its members, which place limits upon the development and integration of individuals within the institution and which lead to the development of academic and social climates, or "presses," with which the individual must come to grips. On one hand this is true with regard to achievement within the academic system if only because institutions of different quality maintain differing standards of academic achievement. On the other hand, this is also true with respect to the social system of the college since much dropout appears to result largely from a lack of congruence between the individual and the social climate of the institution rather than from any specific failure on the part of the individual.

Analysis of the effect of institutional characteristics upon dropout has not been, however, as extensive as that relating to

individual characteristics. Unfortunately, much of the research that does exist is too simplistic to permit meaningful interpretation. Common to such research has been the failure to control for other institutional characteristics (i.e. other than that being studied) which may also affect dropout and the tendency to ignore the fact that differences in dropout rates between institutions is also the result of differences in the types of students admitted (i.e. student inputs). In any case, enough research does exist to permit us to make some rather general statements as to the effect of certain large-scale characteristics of institutions upon persistence in college; specifically institutional type, quality, size, and student composition.

Institutional Type and Dropout

With regard to type of institution, it is fairly clear that public institutions of higher education tend to have higher dropout rates than private institutions if only because much of the student selection process takes place before entering private colleges, while similar selection normally takes place within the public institutions after entrance (Astin, 1972; Van Alstyne, 1973).

It is also fairly clear that two-year colleges have higher dropout rates than do four-year colleges, even after student input characteristics have been taken into account (Astin, 1972; Bayer, 1973; Berls, 1969; and Van Alstyne, 1973). Astin (1972), for instance, finds that even though the higher rates of attrition at two-year colleges are primarily attributable to the lower level of motivation and academic

ability of the entering students, the retention rates of two-year colleges are still somewhat lower than would be expected from the characteristics of their students alone. Some authors have concluded from this that it may well be the function of two-year colleges to screen-out, or cool-out, students from going on to senior college (Clark, 1960).

Since two-year institutions also tend to be institutions of the lower and lower-middle class, other authors have further suggested that two-year colleges may also function to screen out primarily lower status persons from going on to senior college and thereby act to reinforce inequality of opportunity within the educational system (Karabel, 1972; Spady, 1970; and Tinto, 1971). Despite some contrary findings, this appears to arise not only from the fact that these institutions serve largely lower status individuals, but also from the fact that dropout within these institutions is also a function of the individual's social status (Folger, Bayer, and Astin, 1971; Jaffe and Adams, 1970; and Jencks, 1968). The two major studies which tend to dispute this conclusion are, for example, subject to methodological problems which cast doubt upon their validity. On one hand Astin's (1972) study of dropout runs into the problem of attempting to include as many independent variables (134) in a regression equation which is based upon data of limited student representation (an average of 250 persons in each of 217 institutions). On the other hand, Van Alstyne's (1973) study of dropouts faces the problem of not having included measures of individual ability.[7] Van Alstyne (1973) finds, for example, that

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[7]It must be noted, however, that the Van Alstyne (1973) study, as cited, is preliminary in nature and therefore may yield different results in its final form.

among two-year college students dropout rates are highest among persons from families with the highest income levels (the reverse being true within the four-year colleges). Given the nature of entrance requirments at two and four-year colleges, it is likely that persons from high income families enrolled in the two-year colleges are primarily persons of lower ability and motivational levels than other students in these colleges from lower income backgrounds. That being the case, controls for ability would probably have eliminated or even reversed differences in dropout rates attributable to family income alone. Jaffe and Adams (1970), for example, used controls for both family background and individual ability, and observed that dropout within both two an four-year institutions was still a function of the individual's socil status. They did note, however, that the effect of family status wa less important within the two-year college than it was within the four-year institutions of higher education. Interestingly, they further noted that of income, occupational, and educational measures of family social status, family income was, in both colleges, the least relate to dropout. As suggested earlier, family income may no longer be an adequate measure for differences in social status between families, nd, when used in studies of dropout, may underestimate the extent to whih dropout varies among individuals of different social status backgrouds.

College Quality, Student Composition, and Dropout

Since type of college is roughly correlated with quality of te college, it is not surprising that the quality of the college has alo

been found to influence persistence in college (Astin, 1971; Kamens, 1971; Rock and Centra, 1970; Wegner and Sewell, 1970; and Wegner, 1967). For the state of Wisconsin, Wegner (1967) and Wegner and Sewell (1970) find that higher quality institutions have higher rates of graduation than do lower quality institutions. Rock and Centra (1970) focusing upon specific components of college quality, find that institutions whose faculty have a greater percentage of doctorates and/or institutions which have higher income per student are also those institutions in which students appear to over-achieve relative to what one would have expected from student characteristics alone. Since performance and dropout are directly related, one would assume that these same institutional characteristics are also related to differential rates of dropout.

The impact of college quality is, however, more complex than would be assumed from simple comparisons among institutions of differing quality. This is so because simple comparisons tend to mask the fact that there exists an important interaction between the quality of the institution, the composition of its students, and individual performance and therefore persistence in college. For the most part, these interactive effects can be summarized in terms of the "frog-pond" effect and the "social status" effect of educational institutions.

The "frog-pond" effect, first termed by James Davis (1966) and later applied to elementary schools by St. John (1971) and to high schools by Nelson (1972) and Meyer (1970), argues that there exists a direct relationship between the ability level of the student body of

an institution and the expectations individuals will hold for themselves. Specifically, the higher the average ability of the student body, the lower will be the grades of individuals of given ability relative to the grades of persons of similar ability in institutions with students of lower average ability. Since grades are, in turn, related both to one's expectations for future educational attainment and to the probability of dropping out, it follows that the higher the ability level of one's peers, the lower will be one's expectations and the greater will be the probability of dropping out. From this perspective alone, one might then infer that higher quality institutions, which tend to have students of higher ability, might also have higher dropout rates than institutions of lower quality.

But while this appears to be true (Davis, 1966; and Spaeth, 1971), there also appears to be countervailing forces which tend to reverse, on the aggregate level, the effect of college quality upon persistence; namely the "social status" effect of educational institutions (Meyer, 1970; and Nelson, 1972). In short the "social status" effect argues that the higher the average social status composition of the school, the higher will be the perceived value of that education by the individuals within the school. Since higher quality institutions also tend to have student bodies which are higher in average social status, it follows, from the generalized theory of cost-benefit analysis discussed earlier, that rates of dropout would be lower at institutions of lower quality. Indeed, this is just the implication of the few

studies which have looked at the "frog-pond" and "social status" effects simultaneously (Meyer, 1970; and Nelson, 1972).

But while these findings and the findings from studies on the aggregate level have indicated that college quality and persistence is directly related, it is by no means clear in which ways these counter-vailing forces interact to produce the aggregate effect and for which types of individuals is the aggregate effect positive. Specifically, since dropout is itself a function of varying individual characteristics, it may well be that for certain types of students dropout rates are higher in higher quality institutions.

Studies which have looked at the effect of college quality upon the persistence of students of differing abilities and social status backgrounds, for example, have been somewhat mixed. A study by Wegner (1967), for instance, of retention rates among a sample of Wisconsin institutions of higher education finds that lower status individuals of either lower or higher ability levels are more likely to graduate at very low quality or very high quality institutions than they are at institutions of middle quality. For individuals of higher social status, graduation rates are lowest in the lower-middle quality institutions and highest in the upper-middle and higher quality institutions. Therefore, while it is true that graduation rates are highest for all types of students in the higher quality institutions, the reverse was not true. Especially for students of lower social status backgrounds, attendance at lowest quality institutions was associated with higher graduation

rates than at somewhat higher quality institutions. It should be noted that with ability and social status controlled, students of higher social status are more likely to graduate at all types of institutions than are lower status students.

Wisconsin is not, however, a state which is representative of the national pattern of higher education. For a representative national sample, Kamens (1971) finds that at all levels of achievement, ability, and educational aspirations, students at higher quality institutions are more likely to graduate than are similar students at lower quality institutions. Similar results hold when family background is considered, that is, students of all social status categories are more likely to graduate at institutions of higher quality than they are at institutions of lower quality. And unlike the findings of Wegner's study for Wisconsin, Kamens finds that the lowest quality institutions tend also to have the lowest graduation rates of all types of students. Of note is Kamens finding that "across quality contexts" grades become more important for the "survival" of students from low status families and less important for those students from business and professional families. Implied is the notion that the effect of quality upon individuals of different abilities and social status backgrounds may vary in terms of its effect upon differing forms of dropout; namely academic dismissal and voluntary withdrawal.

Institutional Size and Dropout

Size of the institution (e.g. enrollment) also appears to be related to persistence, but again in a manner which is, as of yet, unclear.

Nelson (1966), for instance, finds that smaller institutions have lower dropout rates than do larger ones, while Kamens (1971) finds that larger institutions have lower dropout rates. Nelson (1966), however, simply categorized institutions as above or below a given size without controls for type or quality of the institution, while Kamens (1971) noted that even after the quality of the institution and the characteristics of the students were taken into account larger institutions tended to have lower dropout rates than did smaller ones. Rock and Central (1970), though focusing upon achievement rather than dropout, take similar factors into account and obtain somewhat different results. Specifically, they find that at higher levels of institutional income per student (i.e. higher quality institutions) smaller colleges had higher levels of achievement than did larger colleges even after student characteristics were taken into account. At low levels of institutional income per student, no relationship between size and achievement was noted. Since achievement and dropout are directly related, these findings suggest that very good, small colleges might be as effective in promoting students to the college degree as are the larger, high quality institutions but effective in different ways. The smaller institution, given its normally lower student-faculty ratio, may be able to enhance persistence through increased student-faculty interaction and therefore through its effect upon both grades and intellectual development. The larger institutions, normally more heterogeneous in student composition, may enhance persistence through its ability to provide for a wider variety of student subcultures and therefore through its effect upon social integration into the institution.

Clearly there remains much more to be known about the effects of institutional characteristics upon dropout among individuals of differing characteristics. What we do know is, at present, quite crude; namely that four-year institutions, private institutions, and high quality institutions have lower dropout rates than do two-year institutions, public institutions, and lower quality institutions. How these differences come about or for which types of persons are the differences greater, smaller, or even reversed is, thus far, beyond our present reach.[8]

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[8]In large part the absence of research in this area has been the result of the absence, until recently, of sufficiently detailed data covering large enough numbers of students in varying types of institutions over a sufficiently long enough periods of time. The American Council on Education data is perhaps the best in this respect. Unfortunately, its utilization has been extremely limited.

V. DROPOUT FROM HIGHER EDUCATION: A REINTERPRETATION

Voluntary Withdrawal and Academic Dismissal

In dealing with the effects of individual and institutional characteristics upon individual integration into the academic and social systems of collegiate environments, it is important to distinguish between academic dismissal and voluntary withdrawal. For instance while academic dismissal is most closely associated with grade performance, dropout in the form of voluntary withdrawal is not. Rather such withdrawal appears to relate t- the lack of congruency between the individual and both the intellectual climate (normative) and the peer-group social system of the college. In this respect, voluntary withdrawals are most frequently found to be both "social isolates" and/or "deviants" in terms of the intellectual norms of the institution. Apparently larger institutions, by providing for a wider variety of subcultures and therefore for a heightened probability for peer-group support, tend to reduce voluntary withdrawal.

Academic dismissals, on the other hand, are often either lacking in both intellectual and social development or are socially integrated to the extreme. That is, dismissals have often been found to be unable to meet the intellectual and social demands of the college or have been so integrated into the social system of the college that academic demands go unmet. In either instance, grade performance is the single strongest

predictor of academic dismissal. Voluntary withdrawals, in this respect, generally show both higher grade performance and higher levels of intellectual development than do the average persister.

Goal Commitment and Dropout

As suggested by Hackman and Dysinger (1970) and as argued here, the distinction between voluntary withdrawal and academic dismissal, as well as that between transfer and permanent dropout, can be more effectively analyzed by taking account of the individual's commitment to the goal of college completion.

It is the level of goal commitment, in periods of stable market conditions, as it is affected and modified by the individual's experience in the college which determines his decision to remain in college. Given sufficiently low goal commitment, individuals tend to withdraw not so much as a result of poor grade performance as much as a result of insufficient rewards from the social and academic (normative) systems of the college. As a result, low levels of commitment to the institution and to the goal of college completion set off the voluntary withdrawal from the academic dismissal.

That goal commitment appears to be an important part of the dropout process is further suggested by the fact that, among men, voluntary withdrawal becomes a decreasing proportion of the total yearly dropout as individuals approach college graduation (Sexton, 1965). Since voluntary withdrawal implies a decision on the part of the individual that the benefits of the degree do not outweigh the costs of attendance, it can

be argued that perceived benefits, and therefore goal commitment, increase with increasing nearness to completion. In a sense, past costs become an investment once those costs have been borne. That is, the perceived ratio of benefits to costs, other things equal, tends to increase as one proceeds through college. Goal commitment then, also increases.

For both dismissals and voluntary withdrawals, level of goal commitment can also be utilized to distinguish between dropouts who transfer, stop-out, and those who leave the system of higher education altogether. Presumably, high goal commitment among dismissals will lead to transfer to institutions having lower standards of academic performance. Among voluntary withdrawals, sufficiently high goal commitment may lead to transfer to institutions perceived to be more matched to the person's intellectual and/or social needs and wants. In both instances, sufficiently low goal commitment will tend to lead to permanent dropout from the system of higher education. Finally, whether voluntary withdrawals transfer or "stop-out" to re-enroll at the same institution at a later date, seems to be an outcome of both goal commitment and institutional commitment.

Social Status and Dropout

Interestingly, while voluntary withdrawals tend to be somewhat more able and to exhibit higher levels of intellectual development than do persisters, they not only tend to have somewhat lower goal commitment but also tend to be of somewhat higher average social status. Conversely, dismissals, while tending to show both lower aptitude and levels of

intellectual development than the average persister, also score somewhat lower scores on measures of social status than do persisters.[1]

Since dismissals appear to be of somewhat lower social status than are persisters, and certainly of lower social status than withdrawals, it can be argued that the effect of social status upon persistence in college occurs not through goal commitment (since dismissals tend to have levels of goal commitment comparable to that of persisters) but through its effect upon academic performance. In this respect, given sufficient social interaction, programs designed to influence the academic performance of persons whose social backgrounds have often meant inferior schooling prior to college seem to be aimed in the proper direction to enhance their persistence in college.

A Modified Definition of Dropout

Given these comments, a modified definition of dropout is suggested; namely that dropout represents the failure of individuals, of given ability and goal commitment, to achieve desired educational goals. For those persons whose ability and goal commitment suggest realistic expectations within given institutional settings, the modified definition then implies an important interaction between the needs and desires of the individual and the concerns of the institution. Namely, the individual realistically seeks to achieve a given educational goal and the institution seeks to develop in the individuals, of sufficient potential, skills appropriate

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[1]Though there are undoubtedly instances in which lower social status persons withdraw "voluntarily" because of external needs (e.g. financial, family), these cases tend to be the minority rather than the majority.

to the stated goals of both the individual and the institution. For those persons whose ability and/or goal commitment suggest unrealistic expectations within a given educational setting, the definition would intepret transfer to other institutions as one of the processes through which individuals of varying abilities and goal commitments are matched to institutions of varying standards and/or characteristics. In so doing, the definition tends to focus attention on that view of higher education which argues that the higher educational system should serve to maximize the potential of each individual in the system. At the same time, however, the definition recognizes the all too often overlooked fact that some persons will dropout of institutions if only because of insufficient commitment to the goal of college education; in other words, that the college degree is just not worth the effort.

While it seems unavoidable that the demand for access to higher education will continue to increase in the foreseeable future, it should not follow that higher education should attempt to serve, in an uncritical manner, each and every person who enters. To classify as a dropout everyone who leaves, irrespective of his interests or goal commitment, is, in effect, to suggest that higher education do just that.

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